

**REQUEST FOR COUNCIL ACTION**

MEETING

DATE:

39  
12/15/03

<b>AGENDA SECTION:</b> CONSENT AGENDA	<b>ORIGINATING DEPT:</b> Public Works	<b>ITEM NO.</b> D-12
<b>ITEM DESCRIPTION:</b> Water Reclamation Plant Task Order No. 2 and Task Order No. 3 (J-4390)		<b>PREPARED BY:</b> R. Freese <i>RF</i>

The Water Reclamation Plant (WRP) is approaching its design capacity and because of the continuing growth in the City an expansion of the plant will be required during the next three years. An application for the renewal of the plant's NPDES permit has been submitted to the Minnesota Pollution Control Agency and requirements of the permit are currently being negotiated. The Permit Application includes information regarding projected growth of the City and the need for an expansion of the WRP from its current capacity of 18.5 MGD (million gallons per day) to 25.5 MGD (2025 capacity) and planning for a future 40.0 MGD plant (2055 capacity). Additional site planning has been completed that will facilitate additional expansion of the plant to an ultimate capacity of 60 MGD to serve an estimated population of 300,000.

During the months of October and November 2003 the WRP experienced organic loadings (BOD) in excess of the plant's rated maximum month capacity. Through careful operational controls the staff was able to produce an effluent that meet National Pollution Discharge Elimination System (NPDES) Permit Limits. No Permit violations occurred in either of these two months. Loadings for the month of December 2003 have returned to seasonal norms. With the continued growth in the production of Rochester's manufacturing facilities and the unprecedented residential housing growth in Rochester, the daily and monthly wastewater flows and loads to the WRP have increased to near Permit levels.

It is imperative that the design and construction of WRP expansion (10-year growth period) continue at an accelerated schedule. Violation of the WRP's NPDES Discharge Permit will force MPCA to invoke sewer extension and sewer connection moratoriums. If moratoriums were imposed, then all new residential, commercial, and manufacturing growth would be stopped until the proposed 24 month long WRP expansion was completed in late 2006.

Public Works staff and the WRP Expansion Project consultants have prepared the attached Project Schedule. Please note that in order for this schedule to be met, the City Council Authorization to proceed with Final Design is need by 1/27/04. Geotechnical Investigation (Task Order No. 2) and Initial Final Design (Task Order No. 3) will need to be completed in the next 6 weeks prior to 1/27/04 to maintain this schedule.

Task Order No. 2 involves site survey and fieldwork, soil and rock borings, laboratory analysis of the soil and rock samples and preparation of technical reports used as the basis for the design of the footings and foundations for the new facilities. Estimated costs for this Task shall not exceed \$78,000.

Task Order No. 3 involves initial structure design based on the Geotechnical Investigation, developing initial HVAC design guidelines and criteria, development of initial mechanical systems design guidelines, preparation of initial process instrumentation and control drawings, develop architectural schematic drawings for building roof and wall systems, update plant hydraulics based on implementation of Value Engineering recommendations. Estimated costs for this Task shall not exceed \$265,000.

**COUNCIL ACTION REQUESTED:**

Authorize the Mayor and City Clerk to execute Task Order No. 2 and Task Order No. 3 necessary for the next stages of the WRP Expansion Project (J-4390).

**COUNCIL ACTION:** Motion by: \_\_\_\_\_ Second by: \_\_\_\_\_ to: \_\_\_\_\_



## Rochester, MN WRP 2004 Plant Upgrade and Expansion Schedule

TO: Lyle Zimmerman  
Richard Freese

COPIES: John Glatzmaier/CH2M HILL  
David Gee/CH2M HILL  
Lesile Knapp/EARTHTECH

FROM: Kim Erickson/CH2M HILL

DATE: December 8, 2003

The following project schedule was outlined in our Meeting on Dec. 4<sup>th</sup>.

Construction Contract	Project Activity	Date
Site Work	1 <sup>st</sup> Construction Advertisement	May 7, 2004
	Bid Documents Available	May 17, 2004
	Open Bids	June 18, 2004
	Notice of Contract Award	June 29, 2004
	Notice To Proceed	July 12, 2004
	Contract Completion	September 10, 2004
Plant Upgrade & Expansion	1 <sup>st</sup> Construction Advertisement	July 2, 2004
	Bid Documents Available	July 13, 2004
	Open Bids	August 18, 2004
	Notice of Contract Award	August 31, 2004
	Notice To Proceed	September 18, 2004
	Substantial Completion	September 13, 2006
	Contract Completion	December 20, 2006

The above schedule is based on Authorization for final design on January 27, 2004.

**REQUEST FOR COUNCIL ACTION**

MEETING

DATE: 12/15/03

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**AGENDA SECTION:**

CONSENT AGENDA

**ORIGINATING DEPT:**

Public Works

**ITEM NO.**

D-13

**ITEM DESCRIPTION:** Sewer Utility Rate Study Professional Services Agreement J-4394**PREPARED BY:**

R. Freese

In October 1997 the City Council received a report on the results of the sewer rate study conducted by Brown and Caldwell. Subsequently the City Council adopted a Resolution that established sewer rates for the period 1998-2002. The enacted sewer rate increase provided a moderate, yet uniform revenue increase of 2.5% per year over the 5-year period. On June 17, 2003 the City Council approved a Resolution increasing the Sewer Utility Rates by 2.5% for 2003. No Sewer Utility Rate increase is in place for 2004. A sewer service charge system is established by City Ordinance whereby revenue will be collected from the users of the wastewater facilities to pay the cost incurred by the city for administration, operation and maintenance, replacement and debt service of such facilities.

As a result of the preliminary facility planning, preliminary engineering and Value Engineering session, we now have specific information regarding the costs of construction and operation of the Water Reclamation Plant.

Public Works and Finance Department staff have reviewed a professional services agreement proposal from Brown and Caldwell to update the Sewer Utility Rate model they prepared for the city in 1997. The Study will cost \$65,118 and will establish rates for the period 2004-2008. The Sewer Utility Rate Study process evaluates previous operating expenses and system use to establish a base year. Projections on residential and non-residential growth are factored into the model based on data provided by the Rochester Olmsted Planning Department. Capital and operating budget expenditures are also incorporated into the analysis.

Sewer rates are developed based on a methodology commonly referred to as "cost of service". The Sewer Utility's operation, maintenance, replacement and capital costs are allocated to the following treatment parameters: customer, flow, BOD, TSS, and phosphorous. The annual cost for each parameter is divided by the estimated number of units of treatment to derive the unit cost of service for each parameter. Each and every customer pays the same UNIT COST OF SERVICE for each treatment parameter.

All residential and most commercial customers pay for domestic strength wastewater. The number of CCF (100 cubic feet; 748 cubic feet equals 1,000 gallons) contributed to the collection and treatment system determines each customer's monthly bill. Industrial customers pay the same rates as residential and commercial customers, but their wastewater is typically of higher BOD and TSS strength and they pay a surcharge for strengths exceeding domestic strength wastewater.

The proposed WRP expansion cost is estimated at approximately \$44M, the cost of upgrades/replacements to the existing plant is estimated at \$25M. The capital (and bond interest) costs of the upgrades/replacements to the existing plant will be a cost recovered through increased sewer rates. The capital (and bond interest) cost of expansion of the WRP can be recovered through increased sewer rates, or as a Connection Charge collected from new development at the time of connection, or some combination of the two methods. The Sewer Utility Rate Study will analyze the Incremental Growth-Related Cost Method for establishing Connection Charges.

A preliminary report on sewer rate impacts of the WRP expansion and upgrade projects will be provided to the City Council at a Committee of the Whole Meeting on 1/26/04.

**COUNCIL ACTION REQUESTED:**

Authorize the Mayor and City Clerk to execute a Professional Services Agreement with Brown and Caldwell for a Sewer Utility Rate Study, J-4394.

**COUNCIL ACTION:** Motion by: \_\_\_\_\_ Second by: \_\_\_\_\_ to: \_\_\_\_\_

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